

II. REMARKS

Claims 124 and 26-31 remain in the application. The Examiner has rejected claims 1-3, 6-12 and 14 under 35 U.S.C. 102 (b) as anticipated by Gruttemeler.

Claims 1, 9, 14, 24 and 26 have been amended. Claim 25 has been cancelled.

Claims , 9, 14, 24 and 26 have been amended as follows

CLAIM 1 (Currently Amended): A polo training apparatus comprising a dummy horse, ~~and~~ at least one movable ball-receiving surface located adjacent to and below the dummy horse, and two or more inclined surfaces adjacent to the ball receiving surface, the inclined surfaces angled to rise above the ball-receiving surface so as to return a hit ball to the ball receiving surface.

CLAIM 9 (Currently amended): A polo training apparatus as claimed in claim 7, wherein the dummy horse is movable to simulate the movements of a real polo horse during a game of polo.

CLAIM 14 (Currently Amended): A polo training apparatus as claimed in claim 1 ~~further comprising~~ wherein the ~~one~~ two or more inclined surfaces adjacent to the ball-receiving surface are at oblique angles to the ball receiving surface.

CLAIM 24 (Currently Amended): A horse riding training apparatus comprises a movable body portion upon which a rider sits, a movable neck portion extending from the body portion and a movable head

extending from the neck portion, and means for displacing the body portion both in a reciprocating motion and a pivotal motion pivoting the body portion from side to side, the apparatus further comprising sensor means responsive to a simulated riding action in order to control the apparatus.

CLAIM 26 (Currently amended): A horse riding training apparatus as claimed in claim 24, wherein the body portion is movable to simulate the movement of a real polo horse during a game of polo.

Basis for the amendment to claim 1 may be found in Fig. 1, illustrating the obliquely inclined walls 26, 28 adjacent the ball-receiving surfaces 22, 24 and the published application, application number, US 2002/0014741, sections [0026] and [0038].

Basis for the amendment to claim 9 may be found in the last sentences of sections [0035] and [0036].

Basis for the amendment to claim 14 may be found in Fig. 1, illustrating the obliquely inclined walls 26, 28 adjacent the ball-receiving surfaces 22, 24 and sections [0026] and [0038].

Basis for the amendment to claim 24 may be found in sections [0030] and [0032].

Basis for the amendment to claim 26 may be found in the last sentences of sections [0035] and [0036].

Please reconsider the application in view of the amendments and the following remarks.

III. RESPONSE TO CLAIM REJECTIONS UNDER 35 USC §102

A. Response to Rejection of Claims 1-3, 6-12 and 14.

In the office action, claims 1-3, 6-12 and 14 were rejected under 35 USC 102 (b) as being anticipated by Gruttemeler DE Patent No. 37 04 150. Gruttemeler, '150, neither expressly or inherently contains, within its four corners, every element of the claims in question.

Claim 1, as amended, from which claims 2-3, 6-12 and 14 depend, comprises the following elements:

1. a dummy horse;
2. at least one ball-receiving surface;
3. the ball-receiving surface being displaceable relative to the dummy horse, and,
4. two or more inclined surfaces adjacent the ball-receiving surface, the inclined surfaces angled to rise above the ball-receiving surface so as to return a hit ball to the ball-receiving surface.

Gruttemeler '150 does not teach or suggest the limitation of two or more inclined surfaces adjacent the ball-receiving surface, the inclined surfaces angled to rise above the ball-receiving surface so as to return a hit ball to the ball-receiving surface.

Claim 1, as amended, is not anticipated by Gruttemeler. Allowance of this claim is respectfully requested.

The polo training apparatus of the present invention is more than training equipment for teaching students how to ride a horse as disclosed by Gruttemeler. The polo training apparatus of the present invention is an enclosed area comprising:

a dummy horse that simulates the movements with a polo pony by reciprocating motion as well as pivoting both the neck and its body to the sideward motion of the polo pony; *see published application, sections 0029, 0032*

a movable ball-receiving surface that moves at the same speed as the horse because both have the same drive mechanism, a common electrical motor; *see published application, sections 0029-0032*

two or more inclined walls angled to rise above the ball-receiving surface to return the hit balls; *see published application, sections 0027, 0038*

a peripheral enclosure comprising a cage or net to catch the balls and return them to the ball-receiving surface by allowing them to slide down the inclined walls. *see published application, sections 0026, 0027, 0038 0039*

The dummy horse, according to amended claim 9, simulates the movements of a real polo horse during a polo game. The dummy horse simulates reciprocal movements as well as pivotal movements. The surrounding surfaces 22, 24 and walls 12, 14, 18, 26, 28 30 are used to contain the balls within the enclosure. A ball hit from the ball-receiving surface will rebound from the walls 12,14, 18 of the polo training apparatus and move down the inclined walls 26, 28, 30 towards the conveyor belts 22, 24, where it becomes available for the rider to hit the ball again. A rider may repeatedly hit a series of balls without having to dismount and retrieve the balls. *see published application [0038], [0039].*

Gruttemeler does not disclose or claim the elements in amended claims 1, 9 and 14 nor does it teach or disclose the elements in the claims that depend from claims 1, 9 and 14. Gruttemeler merely teaches training equipment for learning the basic concepts of riding a horse, the forward motion of the horse as well as the up and down movements. The Applicant discloses and claims a polo training apparatus to teach its rider how to play polo. According to the amended claims, balls are returned to the conveyor belt without the rider having to retrieve them, amended claims 1, 9, 15, 16. Applicant also claims a dummy horse that simulates the pivotal side-to-side movements of a polo horse during a game of

polo, claims 7-9, 17-19. Gruttemeler does not anticipate claims 1, 9 and 14. Allowance of these claims is respectfully requested.

Regarding claims 10-12, the Examiner has incorrectly interpreted Gruttemeler's description of the speed of the riding body and its relationship to the speed of the conveyor belt according to page 8, lines 11-20. Gruttemeler states "The speed of this conveyor belt can be set for the speed of a live horse when during mounted gymnastics." Claims 10-12, dependent from claim 1 and having all of the limitations of claim, claim a dummy horse and ball-receiving surface that are driven by a common means. The user of the Gruttemeler training mechanism can merely "set" the speed to match the speed of a live horse. Nowhere in the Gruttemeler patent is the drive for the conveyor belt disclosed. *see Gruttemeler page 12.*

Claim 14, as amended, discloses an inclined wall angled above the ball-receiving surface. The step 19 in Gruttemeler is angled to plane below the conveyor belt and, in no way can the step 19 function to return balls to the conveyor belt as taught by applicant.

Claims 1-3, 6-12 and 14, as amended, are not anticipated by Gruttemeler. Allowance of these claims is respectfully requested.

A. Response to Rejection of Claims 17-19, 24-26.

The Examiner has rejected claims 17-19, 24-26 under 35 U.S.C. 102(b) as being anticipated by Greenwood '515. Greenwood, '515, neither expressly or inherently contains, within its four corners, every element of the claims in question.

Applicant claims a dummy horse having a body portion 44 pivotally mounted on a frame, whereby the body portion 44 can pivot from side to side.

The side to side pivoting of the body portion 44 of the dummy horse simulates more closely the movement of the rider and horse as the ball is hit. see *published application, sections 0029, 0032, 0036*. Applicant's Figures 2 and 3 clearly show that the body portion is labeled as 44 and the neck portion 46 is a different and distinguishable feature. In claims 17-19, Applicant is claiming a body portion that pivots.

The '515 patent merely discloses a neck portion that is pivotal. The neck member 20 is hollow and houses main and subsidiary elongate links 26, 28 each of which are pivotally attached at separate pivots to the head member 22 and to a lateral pivoting member 30 (which, as seen in Fig. 2, is part of the neck 20.) see *Greenwood, '515 col. 3, lines 27-42*. The double linkage arrangement ensures that as the neck portion 20 is pivoted downwardly, the head portion 22 is pivoted slightly upward. *Id.* Applicant also uses a pivotally mounted neck portion 46 and a pivotally mounted head 48 in his dummy horse but credits an earlier patent for those features, GB 2,256,597, and does not claim those features. see *page 5, lines 10-18*. Claim 17 is limited to a body portion 44, as distinguished from the neck portion 46, that pivots side to side.

The Greenwood '515 patent does not anticipate Applicant's claim 17.

Claims 18 and 19 depend from claim 17 and therefore have the same innovative element, a pivoting body portion 44. Column 4, lines 3-16 of the Greenwood '515 patent disclose the neck portion 20 as biased into its uppermost position as illustrated in the '515 Figs. 1 and 2. Claims 18 and 19 disclose a biasing means for biasing the body portion which is not disclosed by the '515 patent.

Therefore, Examiner's rejection of claims 17-19 under 35 USC 102 (b) is not appropriate because Greenwood, '515, neither expressly or inherently discloses every element of the claims in question. The present invention as defined in claims 17-19 is patentably distinguished over Greenwood. Applicant

respectfully requests the Examiner to withdraw her rejection of claims 17-19 under 35 U.S.C. §102(b).

The Examiner has rejected claims 24-26 as being anticipated by Greenwood, '515 without explanation other than to see the specification and drawings. Claim 25 is presently cancelled. Claims 24 and 26 as amended, remain in the application. Claim 24 has the following elements:

1. a movable body portion;
2. means for displacing the body portion both in a reciprocating motion and a pivotal motion pivoting the body portion from side to side;
3. and sensor means responsive to a simulated riding action in order to control the apparatus.

As discussed above, Applicant's body portion 44 is distinguished from the '515 disclosure of a neck member 20. Figure 2 shows that the body portion 44 is provided with two pressure sensitive knee sensors 80a, 80b, and feet sensors 82. The '515 patent merely discloses a pivotal neck 20 and sensor means within the neck. It does not disclose Claim 24's elements of a movable body portion and means for displacing the movable body portion, i.e., an electric motor M. *see Applicant, sections 0031, 0032.*

The Greenwood '515 document discloses the provision of sensing means 96 which are pressure sensors sensitive to impact. *see col. 5, line 35 to col. 6, line 33.* The Greenwood sensors are designed to be hit by the whip of a rider and are for practicing the correct whipping technique, as indicated by the audible or visual signal. However, there is no disclosure of Applicant's sensor means as used to control the apparatus. It is clear from the aforementioned passage of Greenwood that it is the adjustable electronic control 98, 100, which controls the movement of the Greenwood apparatus.

Examiner's rejection of claims 24, 26 under 35 USC 102 (b) is not appropriate and the present invention as defined in claims 24 and 26 is patentably distinguished over Greenwood '515. Applicant respectfully requests the Examiner to withdraw her rejection of claims 24 and 26 under 35 U.S.C. §102(b).

IV. RESPONSE TO CLAIM REJECTIONS UNDER 35 USC §103

Response to Rejection of Claims 4, 5, 13, 15, 16.

The Examiner rejected claims 4, 5, 13, 15, and 16 under 35 USC §103 as being unpatentable over Gruttemeler. The Examiner states that, regarding claims 4 and 5, Gruttemeler is silent as to the having a plurality of ball-receiving surfaces to the sides and below the dummy horse and conclusively determines that it would have been an obvious matter of design choice to modify Gruttemeler by positioning a ball-receiving surface on both sides of the dummy horse.

An obviousness rejection may also be based upon an Examiner's personal knowledge. As stated in the Code of Federal Regulation (C.F.R.), "in rejecting claims the examiner may rely ... upon facts within his or her personal knowledge pursuant to Section 1.107." However, the Examiner's ability to use personal knowledge is qualified by 1.107 which states:

When a **rejection** in an application is based on facts within the personal knowledge of an employee of the Office, the data shall be as specific as possible, and the reference must be supported, when called for by the applicant, by the affidavit of such employee, and such affidavit shall be subject to contradiction or explanation by the affidavits of the applicant and other persons.

Accordingly, if the Examiner uses personal knowledge in a **rejection**, the Applicant is entitled to an affidavit from the Examiner. Applicant hereby requests

an affidavit from the Examiner with specific data and supporting references that it would have been obvious to have multiple ball-receiving surfaces.

Contrary to Examiner's statement, having multiple ball-receiving surfaces is not an "obvious matter of design choice." The multiple ball-receiving surfaces are purposely an integral part of the polo training equipment since in an actual game of polo, which Applicant's invention simulates, balls must be hit from either side of the polo pony and the function of the ball-receiving surface is to train the player to hit from either side of the pony. This is contrary to Examiner's mistaken statement that the positioning of the ball-receiving surfaces on both sides of the dummy horse would give a more realistic feel to the rider to moving with respect to the ball-receiving surface.

Claims 2 and 4 are not obvious in light of Gruttemeler and Examiner's own knowledge. Allowance of claims 2 and 4 are respectfully requested.

Regarding claim 13, Applicant's claim 13 teaches a polo training apparatus wherein:

the dummy horse and ball-receiving surface are driven by the same electric motor.

The novel limitation is that the conveyor belt and dummy horse are driven by the same motor not simply that a motorized device is used. Nowhere in the Gruttemeler patent is the drive mechanism for the conveyor belt disclosed, and obviously, nowhere in Gruttemeler is the limitation that both the dummy horse and ball-receiving surface (conveyor belt) driven by the same motor. see *Gruttemeler page 12*

In addressing Examiner's citing of *In re Venner*, 262 F.2d 91, 95, 120 U.S.P.Q. 193, 194 (C.C.P.A. 1958), Applicant would like to distinguish this case from the present invention. Applicant teaches that the conveyor belt and dummy horse are driven by the same motor not simply that a motorized device is used. Applicant did not merely automate a mechanical activity in order to accomplish

the same results. Respectfully, the Examiner is merely looking at the end results and not the inventor's means in which to reach the final product of the present invention. Applicant's invention has the advantage that the movable ball-receiving surface moves at a speed that is proportional to the speed of the horse because both have the same drive mechanism, a common electrical motor. It is the operation of a motor M that induces a simulated galloping motion in the horse but also causes the ball receiving surface or conveyor belts 22, 24 to move. Having the ball-receiving surface and the horse move at related speeds is more realistic. *see published application, sections 0029-0032* By automating the prior art, Applicant's invention is still un-represented by the prior art.

In regard to claims 15 and 16, claims 15 and 16 depend from claim 1, as amended, have all of the limitations of claim 1. The peripheral enclosure of claim 15 comprises inclined walls 26, 28, 30 as claimed in amended claim 1. As Examiner states, Gruttemeler does not teach a peripheral enclosure nor does he teach inclined walls. If Examiner wishes to rely upon facts within her personal knowledge pursuant to Section 1.107, Applicant respectfully requests an affidavit citing the specific facts within Examiner's personal knowledge that would make the peripheral enclosure as claimed obvious.

Claims 20-23 were rejected by the Examiner under 35 U.S.C. 103 (a) as being unpatentable over Greenwood '515 in light of Gruttemeler '150. Claims 20-23 depend from claim 17. As discussed above, claim 17 is limited to a body portion 44, as distinguished from the neck portion 46, that pivots side to side. Claims 20-23 also incorporate this limitation as depending from claim 17. Claims 17 and 20-23 comprise the element of a body portion that moves side to side. The body portion 44 is distinguished from the '515 disclosure of a neck member 20. Figure 2 shows that the body portion 44 is provided with two pressure sensitive knee sensors 80a, 80b, and feet sensors 82. The '515 patent merely discloses a pivotal neck 20 and sensor means within the neck. It does not

disclose Claim 17's elements of a movable body portion and means for displacing the movable body portion so that it pivots from side to side, i.e., an electric motor M.

Although pressures sensors are well known, neither Greenwood, nor Gruttemeler disclose specific sensors that actuate a side to side movement in a dummy horse. All of the apparatus disclosed by Greenwood and Gruttemeler are limited to up and down movements, *see Greenwood, col. 5 lines 53-65, the neck and head swing in between the two positions illustrated in chain dot of Fig. 2.*

Claims 22 and 23 depend from claim 17 and have all of Claim 17's elements incorporated within. Display means and display lights are common, however, a dummy horse that is movable from side to side and uses display means and lights to indicate the correct posture for a particular polo shot is unique with Applicant's invention.

Neither Greenwood '515 nor Gruttemeler teach or disclose this limitation. Applicant respectfully requests the Examiner to withdraw her rejection of claims 20-23 under 35 U.S.C. §103(a).

Claims 27-31 were rejected by the Examiner under 35 U.S.C. 103 (a) as being unpatentable over Greenwood '515 in light of Gruttemeler '150. Claims 27-31 depend from amended claim 24. Claim 24, as amended teaches a body portion 44, as distinguished from the neck portion 46, that pivots side to side. Claims 27-31 also incorporate this limitation as depending from claim 24.

Applicant's specification teaches that the simulated rider's action of Applicant's dummy horse includes a cylindrical or galloping motion, as well as side to side motion. None of the cited references, either singly or combined, teach or suggest using sensor means to increase speed for both a galloping action and a side to side motion. Neither Greenwood '515 nor Gruttemeler teach or disclose this limitation.

In addition, Examiner is again injecting her own personal knowledge as to interpreting the teachings of Greenwood '515 and Gruttemeler to reject claims 27-31. Applicant hereby requests an affidavit from the Examiner with specific data and supporting references that it would have been obvious to have the limitations as taught in claims 27-31. Applicant respectfully requests the Examiner to withdraw her rejection of claims 27-31 under 35 U.S.C. §103(a).

LEGAL PRECEDENT

A determination under 35 U.S.C. §103 is whether the claimed invention as a whole would have been obvious to a person of ordinary skill in the art at the time the invention was made. *In re Mayne*, 104 F.3d 1339, 1341, 41 USPQ 2d 1451, 1453 (Fed. Cir. 1997). An obviousness determination is based on underlying factual inquiries including: (1) the scope and content of the prior art; (2) the level of ordinary skill in the art; (3) the differences between the claimed invention and the prior art; and (4) objective evidence of nonobviousness. *Graham v. John Deere, Co.*, 383 U.S. 1, 17-18, 148 USPQ 459, 467 (1966), see

also *Robotic Vision Sys., Inc. v. View Eng'g Inc.*, 189 F.3d 1370, 1376, 51 USPQ 2D 1948, 1953 (Fed. Cir. 1999).

In line with this standard, case law provides that "the consistent criterion for determination of obviousness is whether the prior art would have suggested to one of ordinary skill in the art that this process should be carried out and would have a reasonable likelihood of success, viewed in the light of the prior art." *In re Dow Chem.*, 837 F.2d 469, 473, 5 USPQ 2d 1529, 1531 (Fed. Cir. 1988). The first requirement is that a showing of a suggestion, teaching, or motivation to combine the prior art references is an "essential evidentiary component of an obviousness holding." *C.R. Bard, Inc. v. M3 Sys. Inc.*, 157 F.3d 1340, 1352, 48 USPQ 2d 1225, 1232 (Fed. Cir. 1998). This showing must be clear and particular, and broad conclusory statements about the teaching of multiple references, standing alone, are not "evidence." Similarly, in *American Imaging Services, Inc. v. Intergraph Corp.*, (Fed. Cir. 2000), the Federal Circuit again demonstrated that "suggestion or motivation" must come from a reference.

In re Dembiczak, 175 F.3d 994, 1000, 50 USPQ 2d 1614, 1617. The second requirement is that the ultimate determination of obviousness must be based on a reasonable expectation of success. *In re O'Farrell*, 853 F.2d 894, 903-904, 7 USPQ 2d 1673, 1681 (Fed. Cir. 1988); see also *In re Longi*, 759 F.2d 887, 897, 225 USPQ 645, 651-52 (Fed. Cir. 1985). The mere fact that the prior art may be modified in the manner suggested by the Examiner does not make the modification obvious unless the prior art suggested the desirability of the modification. *In re Fritch*, 972 F.2d 1260, 1265, 23 USPQ 2d 1780, 1783-84 (Fed. Cir. 1992).

The Examiner has the burden of establishing a prima facie case of obviousness. *In re Deuel*, 51 F.3d 1552, 1557, 34 USPQ 2d 1210, 1214 (Fed. Cir. 1995). The burden to rebut a rejection of obviousness does not arise until a prima facie case has been established. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 USPQ 2d 1955, 1957 (Fed. Cir. 1993). Only if the burden of establishing a prima

facie case is met does the burden of coming forward with rebuttal argument or evidence shift to the applicant. *In re Deuel*, 51 F.3d 1552, 1557, 34 USPQ 2d 1210, 1214 (Fed. Cir. 1995), see also *Ex parte Obukowicz*, 27 USPQ 2d 1063, 1065 (B.P.A.I. 1992).

Given the above, Applicant respectfully requests that the rejection of claims 1-31 under 35 U.S.C. §103(a) be reconsidered and withdrawn and that the Examiner indicate the allowance of the claims in the next paper from the Office.

Hindsight

The Examiner rejected claims 1-31 under 35 U.S.C. §103(a) stating that in her belief the claims were unpatentable over Greenwood (U.S. Patent No. 5,429,515) and Examiner's own personal knowledge or Greenwood '515 in view of Gruttemeler. The Applicant respectfully believes the Examiner is using "hindsight." *In Re Dembiczak* states "combining prior art references without evidence of a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blue-print for piecing together the prior art."¹ The issue is "whether the teachings of the prior art would, in and of themselves and without the benefits" of the current application "make the invention as a whole obvious."² Greenwood and Gruttemeler, either alone or in combination, do not suggest, teach, or provide a motivation to put the various elements in the Applicant's disclosure together. Also, the Examiner did not state why some one skilled in the art would have been motivated to put the references together. Therefore the Applicant respectfully requests the Examiner to withdraw her rejection under 35 U.S.C. §103(a).

¹ 175 F.3d at 999.

² *In Re Spinnoble*, 160 U.S.P.Q. 237, 405 F.2d 578, (C.C.P.A. 1969) at 585.

III. SUMMARY

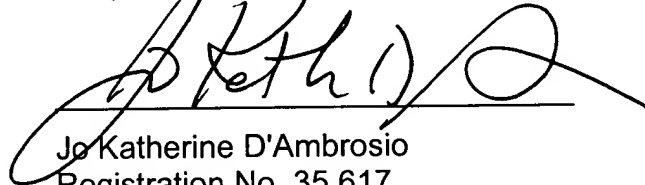
The Applicant has amended claims 1, 9, 14, 24 and 26. Applicant has also responded to Examiner's rejection of claims 1-31 based on §102 and/or §103. There is no basis for a rejection based on novelty since Applicant's invention comprises elements and features that are neither taught or suggested by cited references.

Claims 1-31 remain pending in the application. Early allowance of these claims is respectfully requested.

Applicant respectfully requests a telephone conference with Examiner if Claims 1-31 are not allowed.

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Respectfully submitted,



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